

of PTH, as reflected in the sequences of Figures 1-3, and having a similar ability to induce specific anti-PTH antibodies, and more particularly antibodies specific to the N-terminal amino acid residues of PTH. In this regard, such functional derivative may be similarly positioned peptides or peptides derived from the sequences discussed above and reflected in Figures 1-3 having substitutions, additions or deletions of amino acids, provided the derivation does not alter the ability of the peptide antigen to induce antibody reactive to PTH.

IN THE CLAIMS:

Please amend the following new claims:

1. (Amended) An antigenic peptide for inducing the formation of antibodies having an affinity therefor and for isolating said antibodies, said antigenic peptide comprising a formula selected from the group consisting of SEQ ID NO. 1 and SEQ ID NO. 2
2. (Amended) An antigenic peptide for inducing the formation of antibodies having an affinity therefor and for isolating said antibodies, said antigenic peptide comprising a formula selected from the group consisting of SEQ ID NO. 3, SEQ ID NO. 4, SEQ ID NO. 5 and SEQ ID NO. 6.
3. (Amended) An antigenic peptide for inducing the formation of antibodies having an affinity therefor and for isolating said antibodies, said antigenic peptide comprising a formula selected from the group consisting of SEQ ID NO. 7 and SEQ ID NO. 8.
4. (Amended) An antigenic peptide for inducing the formation of antibodies having an affinity therefor and for isolating said antibodies, said antigenic peptide comprising a formula selected from the group consisting of SEQ ID NO. 9, SEQ ID NO. 10, SEQ ID NO. 11, and SEQ

ID NO. 12.

5. (Amended) A method for producing antibodies useful in the determination of PTH levels in a biological sample comprising the steps:

- a) providing at least one first peptide antigen, said at least one first peptide comprising a peptide fragment of PTH;
- b) administering said at least one first peptide antigen to a host animal to induce antibody production against said at least one first peptide antigen in said host animal;
- c) monitoring antibody titer produced by said administration of said at least one antigen to said host animal;
- d) isolating antisera produced in said host animal by said administration of said at least one peptide antigen; and
- e) selecting antisera from said isolated antisera produced in said host that is capable of binding to a second peptide antigen, said second peptide antigen having a formula selected from the group consisting of SEQ ID NO. 1 and SEQ ID NO. 2.

6. (Amended) The method of Claim 5 wherein in step e), said second peptide antigen comprises a formula selected from the group consisting of SEQ ID NO. 3, SEQ ID NO. 4, SEQ ID NO. 5, and SEQ ID NO. 6.

12. The method of Claim 5 wherein in step e), said second peptide antigen comprises a formula selected from the group consisting of SEQ ID NO. 3, SEQ ID NO. 4, SEQ ID NO. 5, and SEQ ID NO. 6.

13. The method of Claim 5 wherein in step e), said second peptide antigen comprises a formula selected from a group consisting of SEQ ID NO. 9, SEQ ID NO. 10, SEQ ID NO. 11 and SEQ ID NO. 12.

18. (Amended) The method of Claim 5 wherein in step a), said at least one peptide antigen comprises a formula selected from the group consisting of SEQ ID NO. 1 and SEQ ID NO. 2.

19. (Amended) The method of Claim 5 wherein in step a), said at least one peptide antigen comprises a formula selected from the group consisting of SEQ ID NO. 3, SEQ ID NO. 4, SEQ ID NO. 5, and SEQ ID NO. 6.

20. (Amended) The method of Claim 5 wherein in step a), said at least one peptide antigen comprises a formula selected from the group consisting of SEQ ID NO. 7 and SEQ ID NO. 8.

21. (Amended) The method of Claim 5 wherein in step a), said at least one peptide antigen comprises a formula selected from the group consisting of SEQ ID NO. 9, SEQ ID NO. 10, SEQ ID NO. 11 and SEQ ID NO. 12.